Committee on Commerce

# REVIEW OF OTTED'S OVERSIGHT OF THE INNOVATION INCENTIVE GRANT PROGRAM

# **Issue Description**

Since its creation in 2006, Florida's Innovation Incentive Program has spent \$450 million in state funding to recruit or develop seven research institutes focused primarily on biomedical research. These facilities also have received at least an equal amount in local-government funding and private contributions. As a condition for receiving the state funds, the research entities entered into agreements with the Governor's Office of Tourism, Trade, and Economic Development (OTTED) that delineate the state's and each institute's responsibilities, and establishes the periodic release of state funds as each institute meets specified performance measures.

This report examines the background and current status of the Innovation Incentive Program, and explores the challenges of monitoring the program and assessing its long-term benefits to the state of Florida. Based on document research and interviews, this report emphasizes the need to:

- Provide additional oversight of the program;
- Develop additional criteria to measure the impact of the state's investment in an "innovative economy"; and
- Maximize current and future investments as Florida's budget constricts while other states become more competitive in their industry recruitment efforts.

## **Background**

#### History of Major Technology Funding in Florida

Prior to the creation of the Innovation Incentive Program, s. 288.1089, F.S., the state had invested significant sums of money into two science-based programs.

#### The Scripps Research Institute

In 2003, the Legislature created the Scripps Florida Funding Corporation (corporation), a nine-member not-for-profit board that is responsible for contracting with The Scripps Research Institute (TSRI) to establish a state-of-the-art biomedical research institute and campus in the state, commonly referred to as Scripps Florida.<sup>2</sup>

The Legislature appropriated \$310 million to the Scripps Florida project; the source of the money was federal economic stimulus funds provided to Florida under the Jobs and Growth Tax Reconciliation Act of 2003 that had been deposited into the state's General Revenue Fund. OTTED was the initial recipient of the appropriation, but it later disbursed the funds to the corporation pursuant to a funding agreement. The corporation releases the funds (including interest) to Scripps Florida in amounts based on its achievement of specified performance benchmarks enumerated in the 20-year agreement.

Originally, the funds were to be disbursed over a 7-year period, but because of site-selection delays outside of the control of Scripps Florida or the state, the disbursement period has been extended, with the corporation's approval, to 10 years. Undisbursed funds are being invested by the State Board of Administration, and the interest earnings also go to Scripps Florida.

<sup>&</sup>lt;sup>1</sup> Section 288.955, F.S. (Ch. 2003-420, L.O.F.)

<sup>&</sup>lt;sup>2</sup> "Scripps Florida" is a division of TSRI, which is headquartered in La Jolla, Calif.

As of June 2008, the corporation has disbursed \$158.3 million to Scripps Florida. Palm Beach County also has invested or committed at least \$200 million to provide Scripps Florida with land, temporary facilities, and permanent laboratory facilities for new operations in the county.<sup>3</sup> Other local entities also have committed funds or in-kind contributions for Scripps Florida.

Under the terms of its agreement, Scripps Florida is required to reinvest \$155 million to \$200 million<sup>4</sup> in the state's Biomedical Research Trust Fund.<sup>5</sup> These funds are expected to come from revenues generated from royalties and naming rights. No reinvestment funds have been generated yet by Scripps Florida because it has not earned royalties from its discoveries. Since it commenced operations, Scripps Florida has filed 63 patent applications, which remain under review by the U.S. Patent and Trademark Office.<sup>6</sup>

Scripps Florida continues to operate from the Jupiter campus of Florida International University while its own facilities are being built nearby. The expected completion date of the new facilities is early 2009. Under the terms of its amended agreement, Scripps Florida is required to hire 545 employees within the next 10 years.

#### The Centers of Excellence Program

In 2002, the Legislature passed the "Florida Technology Development Act" that directed the State Board of Education to designate Centers of Excellence at state universities. The purpose of the centers is to stimulate university research and commercialization efforts in high-tech fields. In 2003, the Board of Education designated three centers: the Center of Excellence in Biomedical and Marine Biotechnology at Florida Atlantic University; the Florida Photonics Center of Excellence at the University of Central Florida; and the Center of Excellence in Regenerative Health Biotechnology at the University of Florida. Each center received \$10 million from the state to fund its activities.

In 2006, the Legislature provided \$30 million for an expanded Centers of Excellence Program, now designed to foster and promote the research required to develop commercially-promising, advanced, and innovative science and technology and to transfer those discoveries to commercial sectors. The law established the Florida Technology, Research, and Scholarship Board within the Board of Governors of the State University System to recommend to the Board of Governors methods for implementing and administering the Centers of Excellence Program. In November 2006, the Board of Governors disbursed the entire amount to five universities to advance various research projects: Florida Atlantic University, Florida State University, the University of Central Florida, the University of Florida (which received two separate grants), and the University of South Florida. The research ranges from nanotechnology to alternative energy.

In 2007, the Legislature provided \$100 million for additional Centers of Excellence Programs, but the funds were not spent because of budget concerns. In 2008, the Legislature directed that a portion of the carried-over 2007 funds be used to create two new "Centers of Excellence": one at Florida International University to focus on hurricane damage mitigation and development of related products, and one based at FSU to focus on aero-propulsion. Florida now has 11 Centers of Excellence. 11

<sup>5</sup> Created in s. 20.435(1)(h), F.S., the Biomedical Research Trust Fund receives a portion of the tobacco settlement dollars. The James and Esther King Biomedical Research Program and the William G. "Bill" Bankhead, Jr., and David Coley Cancer Research Program are funded by the Biomedical Research Trust Fund.

<sup>8</sup> Ch. 2006-58, L.O.F., see s. 1004.226, F.S.

<sup>&</sup>lt;sup>3</sup> Email from OTTED's Sara Misselhorn, dated 8/17/07.

<sup>&</sup>lt;sup>4</sup> Section 288.955(13), F.S.

<sup>&</sup>lt;sup>6</sup> Scripps Florida Funding Corporation's annual report for the year ended September 30, 2007. Page 28. Report on file with the Senate Commerce Committee.

<sup>&</sup>lt;sup>7</sup> Ch. 2002-265, L.O.F.

<sup>&</sup>lt;sup>9</sup> Section 154A of ch. 2007-72, L.O.F.

<sup>&</sup>lt;sup>10</sup> Section 25(c) and (d) of ch. 2008-152, L.O.F.

<sup>&</sup>lt;sup>11</sup> The 2008-2009 General Appropriations Act created the "Florida Energy Systems Consortium," comprised of five state universities, and appropriated \$50 million for consortium activities. The state university system's Board of Governors has not officially adopted the consortium as the 12<sup>th</sup> Center of Excellence.

#### <u>Creation of the Innovation Incentive Grant Program</u>

In 2006, the Legislature created the Innovation Incentive Program.<sup>12</sup> The purpose of the program is to provide financial resources for research and development institutes and for companies defined as "innovation businesses."<sup>13</sup>

While OTTED oversees the Innovation Incentive Program and enters into agreements with the grant recipients, <sup>14</sup> Enterprise Florida, Inc. (EFI), the state's private economic development entity, is directed to evaluate the grant seekers' proposals and recommend to OTTED which entities should receive the grants and whether waiver of certain requirements is merited. <sup>15</sup>

The criteria used by EFI are detailed in s. 288.1089, F.S. Prospective businesses must submit an application that includes information about the type of business activity they are involved in, the number of employees they expect to hire, the amount of investment they intend to make in the operation, and why the incentive grant is needed. The applicants also must meet the criteria of either a "research and development project" or an "innovation business project." Both are defined in the statute. A requirement common to both types of applicants is a one-to-one match in financial commitment from the local community where they plan to locate. OTTED, in consultation with EFI, may negotiate the amount of the grant to be awarded to an eligible applicant<sup>16</sup> and, later, review whether the entity is meeting the agreement's benchmarks.<sup>17</sup>

The Governor must consult with the President of the Senate and the Speaker of the House of Representatives before approving the grant award, and can release the funds with the approval of the Legislative Budget Commission. Despite the wording of the statute, the funds are not actually "released" to a grant recipient. More accurately, the funds are designated or set aside for the recipient in OTTED's Economic Development Trust Fund, and are awarded in amounts tied to the recipient's attainment of job creation and other benchmarks in its contractual agreement with OTTED.

After the funds are released, OTTED and the applicant must enter into an agreement that sets forth the conditions for payment of the incentive funds. The agreement must include: the total amount of funds awarded; the performance measures that the applicant must meet, including net new jobs, average wages, and total investment; schedule of payments; and sanctions for failing to meet the performance measures, including clawbacks. All of the current contracts are for 20-year terms, although the payout of state money is for a shorter time period, either 7 or 10 years.

One OTTED employee serves as the Innovation Program Manager, responsible for monitoring the seven Innovation Incentive grant recipients along with the Scripps Florida Research Institute, the recruitment of which in 2003 served as a catalyst for creation of the Innovation Incentive Program.

### <u>Distribution of Innovation Incentive Program Funds</u>

In FY 2006-2007, the Legislature appropriated \$200 million in non-recurring general revenue to OTTED's Economic Development Trust Fund for this Innovation Incentive Program. In the subsequent months, \$155.255 million was designated for Burnham Institute for Medical Research; \$24.73 million was designated for Torrey Pines; and \$20 million was designated for SRI International in St. Petersburg.

In FY 2007-2008, the Legislature appropriated \$250 million for this program. Proviso language in the 2007-2008 General Appropriations Act set aside \$80 million of that amount to the University of Miami's new Institute of Human Genomics.

<sup>13</sup> Section 288.1089(2)(g), F.S., defines "innovation business" as a "business expanding or locating in this state that is likely to serve as a catalyst for the growth of an existing or emerging technology cluster or will significantly impact the regional economy in which it is to expand or locate."

<sup>15</sup> Section 288.1089(4) and (5), F.S.

<sup>&</sup>lt;sup>12</sup> Ch. 206-55, L.O.F.

<sup>&</sup>lt;sup>14</sup> Section 288.1089, F.S.

<sup>&</sup>lt;sup>16</sup> Section 288.1089(6), F.S.

<sup>&</sup>lt;sup>17</sup> Section 288.1089(9), F.S.

<sup>&</sup>lt;sup>18</sup> Section 288.1089(7), F.S.

In the first 6 months of 2008, the Governor announced three additional Innovation Incentive Program recipients: a Jupiter research facility to be established by the German-based Max Planck Research Institute; a St. Lucie County campus of the Oregon-based Vaccine and Gene Therapy Institute; and two facilities for the Draper Research Institute to be located in the Tampa Bay area.

In 2008, the Legislature expanded the incentive to include alternative and renwable energy projects. <sup>19</sup>

The Legislature did not appropriate funds to the program for FY 2008-2009. There are now seven Innovation Incentive Program awardees, although the newest ones have not finalized their agreements with OTTED. All of the \$450 million appropriated for the program in FYs 2006-2007 and 2007-2008 has been committed to these seven institutes.

## Recipients of Innovation Incentive Program Grants<sup>20</sup>

Burnham Institute for Medical Research

In October 2006, La Jolla, California-based Burnham Research Laboratories entered into an agreement with OTTED to establish an independent research lab in Orange County, Florida. Burnham Florida intends to conduct cancer research, diabetes and obesity research, and pharmaceutical testing.

Designated for Burnham is \$155.255 million in state Innovation Incentive Program grant funds. An equal amount has been committed by local governments and private entities, including Orange County and Orlando, the University of Central Florida and University of Florida, and a private donation of land, valued at \$13.5 million, for its permanent facilities. Burnham is required to hire 303 employees over the next 10 years, paying an average wage of \$61,054, under the terms of its agreement with OTTED.

# Key Facts about Scripps and Innovation Incentive Program Recipients $As of June 2008^{21}$

Entity	State Funding Committed	State Funding Released	Local/Other Match	Jobs Required by Agreement/ Current Jobs	Reinvestment Amount
Scripps	\$310 million	\$158.3 million <sup>22</sup>	at least \$200 million <sup>23</sup>	545/242	\$155 million to \$200 million
Burnham	\$155.3 million	\$51.4 million	\$155.5 million	303/28	None
Draper	\$15 million	\$7 million	unknown	165/0	max \$15 million
Max Planck	\$94.1 million	\$10 million	unknown	135/0	None
SRI	\$20 million	\$11.4 million	at least \$30 million	160/64	\$10 million to 12.5 million
Torrey Pines	\$24.7 million	\$11.3 million	\$71.5 million	189/19	\$16 million to 20.645 million
UM - IHG	\$80 million	\$20 million	unknown	296/98	\$10 million to \$20 million
VGTI	\$60 million	\$15 million	at least \$58 million	200/0	None

<sup>&</sup>lt;sup>19</sup> Section 27 of ch. 2008-227, L.O.F.

<sup>&</sup>lt;sup>20</sup> Unless otherwise footnoted, the information in this subsection was provided by the Office of Tourism, Trade and Economic Development.

<sup>&</sup>lt;sup>21</sup> Information in the chart provided by Jenni Garrison, OTTED's Innovation Incentive Program Coordinator, on Aug. 28, 2008. Amounts are rounded up to the nearest decimal point.

<sup>&</sup>lt;sup>22</sup> Includes \$8.4 million in interest earnings on the state funds invested with the State Board of Administration.

<sup>&</sup>lt;sup>23</sup> According to the Scripps Florida Business Plan, dated 12/16/03, Palm Beach County's contribution is its commitment to provide land, site planning, and capital infrastructure for Scripps Florida, and to provide funding for the design and construction of the research institute's permanent facilities. The business plan is on file with the Senate Commerce Committee.

As of June 2008, Burnham has received \$51.44 million from the state, based on achieving certain benchmarks established in the agreement with OTTED. The agreement is modeled after that which OTTED has with Scripps, except that there is no requirement for Burnham to return to the state a percentage of any royalties it may earn from commercialization of its discoveries.

Burnham is operating out of temporary facilities, and is expected to open its permanent facility in early 2009 at the planned Villages of Lake Nona development. This mixed-use development is expected to include residential and commercial properties, as well as a medical cluster potentially including the University of Central Florida's new medical school, and a University of Florida research facility.

#### Torrey Pines Institute for Molecular Studies

In November 2006, the La Jolla, California-based Torrey Pines Institute for Molecular Studies entered into an agreement with OTTED to establish an independent research lab in St. Lucie County. Torrey Pines intends to move its headquarters to Port St. Lucie, according to founder and president, Dr. Richard Houghten.

Torrey Pines Florida currently has 19 employees working in temporary laboratories at the Harbor Branch Oceanographic Institute in Fort Pierce.

Torrey Pines' expertise is developing methodologies that can quickly test the effectiveness of compounds in treating diseases. Its work is highly technical, and complementary to the research efforts of TSRI and Burnham.

Set aside for Torrey Pines is \$24.728 million in Innovative Incentive Program grant funds. The local community has committed \$71.52 million to the project – more than the required one-to-one match. Among the local commitments are: \$40 million by the city of Port St. Lucie for buildings and equipment; \$10 million in working capital from St. Lucie County; and land valued at \$15 million donated by a private contributor that will be the site of Torrey Pines' permanent facilities. Florida Atlantic University also has made a \$6.5 million, in-kind donation that includes the value of temporary facilities and the use of graduate assistants.

OTTED's agreement with Torrey Pines is modeled after the Scripps' agreement, and includes a provision for Torrey Pines to return to the state a percentage of any royalties it may earn from commercialization of any new research. Torrey Pines is required to employ 189 workers by the end of 2017, at an annual average wage of \$62,321.

#### SRI International-St. Petersburg

In November 2006, the California-based SRI International<sup>24</sup> entered into a 20-year agreement with OTTED to open a Florida facility focusing on marine technology research and development. Its main operations are located temporarily at the University of South Florida's St. Petersburg campus, but it expects to move into permanent facilities by March 2009 at the Port of St. Petersburg.

SRI is an independent, nonprofit research institute that performs research and development for government agencies, commercial businesses, foundations, and other organizations. Among its first projects in Florida was the August 2007 deployment of a prototype buoy-mounted, ocean wave-powered generator in Tampa Bay. The project is part of a program sponsored by a Japanese company focused on development and deployment of wave-powered generators around the world that operate on a renewable energy source.

Set aside for SRI is \$20 million in Innovation Incentive Program funds. The local government and other commitments total \$30 million, including \$5 million each from the City of St. Petersburg and Pinellas County, a \$5 million grant from the Florida Seaport Transportation and Economic Development program, and \$15 million in-kind from the University of South Florida that includes facilities.<sup>25</sup>

<sup>24</sup> SRI International originated in 1946 as the "Stanford Research Institute," and was a part of Stanford University. In 1970, it became independent of the university, and changed its name to SRI International.

<sup>&</sup>lt;sup>25</sup> SRI's Innovation Incentive Program application, page 8. On file with the Senate Commerce Committee.

SRI is required to have 100 employees by 2012, and 160 employees by 2017, paying an annual average wage of \$58,151. The SRI agreement is modeled after the Scripps agreement, and includes a provision for SRI to return to the state a percentage of any royalties it may earn from commercialization of any new research.

University of Miami's Institute of Human Genomics

The Institute of Human Genomics (the institute) was awarded an \$80 million Innovation Incentive Program grant pursuant to proviso in the 2007-2008 General Appropriations Act. To date, \$20 million has been released.

University of Miami officials date the institute's origin as Dec. 1, 2006, when its director started work. It is operating out of temporary laboratories on the UM campus. Several of the institute's key faculty members, and its director, were recruited from outside of Florida, and brought \$40 million in National Institutes of Health research grants with them when they relocated here.

The institute's permanent facilities are under construction on campus, and are expected to be completed by the fourth quarter of 2008.

The institute's faculty and researchers hope to use information learned through the Human Genome Project, which "mapped" nearly all human genes, to create gene-based treatments or cures for afflictions such as Alzheimer's, cancer, and diabetes. Several of the institute scientists were involved in the recent landmark discovery of a genetic link to multiple sclerosis.

The institute also is one of four research facilities in the United States that is receiving federal funding for a Hispanic Family Community Health Project, and is one of three facilities in the world with gene-sequencing equipment.

The genome institute's agreement with OTTED includes payment to the state of a minimum \$10 million reinvestment of royalties or sale of securities.

#### Max Planck Institute

In April 2008, the Governor announced that the state would be entering into an agreement with the German-based Max Planck Society to help finance a research institute near the Florida Atlantic University campus in Palm Beach County. The institute will be divided into three departments: molecular imaging, bio-sensing, and cellular mechanisms.

The Max Planck Florida Corporation's research institute will receive \$94 million over a 10-year period to develop its facilities, hire staff, and purchase equipment. The local contribution is at least \$87 million, according to press reports. Under the terms of the agreement, the institute must create 135 jobs, paying an average annual wage of \$60,000.

The agreement between Max Planck and OTTED does not require the institute to return to the state a percentage of any royalties it may earn from commercialization of its discoveries, as "reinvestment." Also, Max Planck receives the interest earnings from the investment of the state's Innovation Incentive award money.

Oregon Health and Science University's Vaccine and Gene Therapy Institute (VGTI)

As part of the Oregon Health and Science University (OHSU), the original VGTI was established in March 2001 in Beaverton, Ore. Its strategy is to use multidisciplinary teams of scientists to respond to the increasingly serious infectious disease threats, including AIDS, Nile Fever and other chronic viral infection-associated diseases, newly emerging viral diseases, and infectious diseases of the elderly. VGTI's priorities are vaccine development and creation of novel immune and gene therapeutic approaches to infectious diseases.<sup>26</sup>

In January 2008, the Governor announced plans for VGTI to open a Florida facility, which also will focus on vaccine development. VGTI Florida will be housed within the Torrey Pines complex in Port St. Lucie until its permanent facilities are built nearby. The state has committed \$60 million in Innovation Incentive Program funds. Port St. Lucie has committed \$53 million in infrastructure improvements, and the city and St. Lucie County have pledged \$4.8 million

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<sup>&</sup>lt;sup>26</sup> Information available at <a href="http://www.ohsu.edu/vgti/index.htm">http://www.ohsu.edu/vgti/index.htm</a>.

combined in property abatement and rebates.<sup>27</sup> The research facility is expected to create 200 jobs paying an average salary of \$60,000.<sup>28</sup>

The agreement between VGTI and OTTED does not include a reinvestment requirement to the state, and VGTI also retains the interest earnings from the investment of the state's Innovation Incentive award money.

### **Draper Laboratories**

In July 2008, the Governor announced the most recent Innovation Incentive Program recruit: the Cambridge, Mass,based Charles S. Draper Laboratory, which has agreed to build two facilities in the Tampa Bay region. The state has committed \$15 million in Innovation Incentive Program funds to this endeavor.

The laboratory in Tampa will work with the University of South Florida in developing "microelectromechanical systems," or MEMS, which are small medical tools or devices designed to improve physicians' diagnoses and delivery of treatment.<sup>29</sup> Examples of MEMS include precision surgical instruments, tissue repair, and drug-delivery systems. The Draper facility in St. Petersburg will focus on developing "multi chip modules," which integrate specialized circuitry, semiconductors, and other electronic components to make them smaller, lighter, and more efficient. Additionally, Draper has agreed to collaborate with Progress Energy in developing processes to improve the efficiency of coal-burning plants, thus reducing greenhouse gasses emitted by the plants.

According to the agreement OTTED and Draper signed in June 2008, the two new Draper labs will create a combined 165 jobs, paying an average wage of \$75,000, which is calculated as 200 percent of the average wage in the Hillsborough County-Pinellas County Metropolitan Statistical Area. The total amount and type of local-government and private-sector financial support is unknown, although under s. 288,1089, F.S., the state funding has to be matched at least dollar-for-dollar.

Also, under the terms of the agreement, Draper will reinvest up to \$15 million into the state's Biomedical Research Trust Fund or a successor trust fund. These reinvestment funds will be royalties from the commercialization of inventions or other patentable discoveries made at Draper's Florida lab, or from sale of securities. Payment of the state's share of royalties, if they occur, shall be paid beginning 6 months after the final disbursement of state funds, in 2015.

Founded in 1932 by MIT professor Charles Stark Draper as a teaching lab, the not-for-profit Draper corporation develops guidance, navigation, and control technologies for aircraft, submarines, missiles, and spacecraft. It works with NASA, the U.S. Department of Defense, and commercial businesses to develop technologies and fabricate prototypes. Draper has more than 1,100 engineers and scientists working at four sites around the United States.<sup>30</sup>

### Recent Initiatives by Other States

Total U.S. employment in biosciences sectors reached 1.22 million in 2004, the most recent, complete data available, with average salaries at \$65,775.<sup>31</sup> These jobs created an economic ripple effect of creating 5.8 million additional jobs in the private sector.<sup>32</sup>

Competition for these high-wage, bioscience and biotechnology jobs is keen, and in recent years nearly every state has implemented initiatives, typically tied to their university systems, to recruit companies or their spin-offs. Here is a synopsis on some of the largest initiatives:

<sup>&</sup>lt;sup>27</sup> See http://ohsu.edu/ohsuedu/landingpages/vgtiflorida. Last visited June 8, 2008.

<sup>&</sup>lt;sup>29</sup> See http://usfweb3.usf.edu/absolutenm/templates/?a=756&z=41. Last visited July 28, 2008.

<sup>&</sup>lt;sup>30</sup> See http://www.hoovers.com/charles-stark-draper-laboratory/--ID 52119--/free-co-profile.xhtml. Last visited Aug. 1,

<sup>&</sup>lt;sup>31</sup> "Growing the Nation's Bioscience Sector—State Bioscience Initiatives 2006." Page ix. Report prepared for the Biotechnology Industry Organization. Published April 2007. See http://www.bio.org/local/battelle2006/battelle2006.pdf. <sup>32</sup> Ibid. Page ix.

- California, already a leader in the field with 11 percent of all the bioscience workers in the United States, continues to create financial incentives for bioscience companies. In 2004, California voters created the California Institute for Regenerative Medicine (institute) and a \$3 billion general-obligation bond issue to fund a 10-year, competitive grant program to finance stem-cell research. Court challenges to the bond issue held up implementation of the program until October 2007. To date, the institute has awarded more than \$554 million in bond proceeds for 206 peer-reviewed grants to individual scientists and to research centers. Private donors and universities added an additional \$880 million, bringing the total for the state's new research facilities to almost \$1.2 billion, according to an internal audit of the program. The institute also is planning to create a \$500 million loan fund that would give the state a stake in any successful commercial stem-cell ventures it funds.
- In 2005, the *Washington* Legislature created the \$350 million Life Sciences Discovery Fund to finance bioscience research. <sup>35</sup> The source of the funding is tobacco settlement monies, which are \$35 million a year for 10 years beginning in 2008. The plan is for the state settlement monies to be distributed as matching grants to selected projects. The fund also is designed to attract private and federal investments, and also to earn royalties on research that it has financed.
- In November 2007, *Texas* voters approved a state constitutional amendment creating the Cancer Prevention and Research Institute and authorized the issuance of \$3 billion in state bonds, backed by general revenue, to pay for cancer research. Much of the money would be used as matching grants for all types of cancer research. In its first year of implementation, 18 projects have been funded so far.
- In June 2008, the *Massachusetts* Legislature passed a consensus bill, signed by Gov. Deval Patrick, creating a 10-year, \$1 billion state investment in biotechnology financing.<sup>37</sup> The legislation authorizes \$500 million in borrowing to build a stem-cell bank and a gene research center at the University of Massachusetts Medical School; provides \$25 million a year for research grants, fellowships, and workforce training programs; authorizes \$25 million a year for a range of tax incentives for life-science companies; and creates five Regional Technology and Innovation Centers.

These states and others are utilizing an approach known as "clustering," where similar industries are recruited to a shared vicinity to encourage scientific collaboration. Clustering also can promote economic "synergy," a dynamic situation where complementary industries and service providers relocate or expand near the original cluster to take advantage of business opportunities. Economic synergy has the potential to generate educational, workforce, and cultural opportunities radiating from the original cluster.

## **Findings**

Based on their quarterly reports, the four Innovation Incentive Program awardees that have been in existence for at least 1 year are meeting their job-creation and other benchmarks, and are on track to complete their permanent laboratory and other facilities within the estimated time frames. Additionally, each has been awarded scientific grants, or in the case of SRI, public and private contracts, to conduct research.

The Innovation Incentive Program is less than 3 years old, and that, coupled with the deliberative nature of scientific research, indicates it is too soon to determine the impact of the state's \$450 million expenditure. OTTED has a full-time staff person responsible for communicating with the awardees and monitoring their progress in meeting their contract obligations. However, there is no requirement that OTTED or any other state entity evaluate the economic development impacts of the Innovation Incentive Program in a comprehensive context.<sup>38</sup>

<sup>&</sup>lt;sup>33</sup> Ibid. Page 136.

<sup>&</sup>lt;sup>34</sup> See http://www.cirm.ca.gov/.

<sup>35</sup> See http://www.leg.wa.gov/pub/billinfo/2005-06/Pdf/Bills/Session%20Law%202005/5581-S2.SL.pdf.

<sup>&</sup>lt;sup>36</sup> See <a href="http://www.capitol.state.tx.us/tlodocs/80R/billtext/html/HJ00090F.HTM">http://www.capitol.state.tx.us/tlodocs/80R/billtext/html/HJ00090F.HTM</a>.

<sup>&</sup>lt;sup>37</sup> Information may be accessed at

 $<sup>\</sup>frac{\text{http://www.mass.gov/?pageID=gov3pressrelease\&L=1\&L0=Home\&sid=Agov3\&b=pressrelease\&f=080616\_life\_science\&cs=ld=Agov3}{\text{ld}=Agov3}. \ Last visited July 8, 2008.$ 

<sup>&</sup>lt;sup>38</sup> Enterprise Florida, Inc., does include a synopsis of the program in its annual incentives report and a chart of 20-year

A review of the available contracts reveals that each awardee must report at least annually on whether they have achieved certain "performance expectations." There are no numeric goals associated with these expectations, just that the awardees report on their efforts. These expectations include establishing:

- Collaborative agreements with Florida colleges, universities, and research institutions;
- Collaborative partnerships with Florida businesses; and
- Programs to conduct workforce recruitment activities at public and private colleges and universities, and at community colleges.

Awardees also have agreed to assist OTTED with the recruitment of for-profit and not-for-profit companies in their related fields, under the terms of their contracts. Some of the awardees' quarterly or annual reports mention making contacts with other institutes or companies interested in relocating to Florida. This contract provision is intended to promote the "clustering" economic development concept that proved so successful in Silicon Valley (computer technology) and in La Jolla, Calif. (biomedical/biotechnology industry).

While the awardees appear to submit their quarterly and annual reports on a timely basis to OTTED, these reports are not as useful a program monitoring tool as they could be for two reasons: each awardee is on a different reporting schedule because they entered into their OTTED contracts at different times, and there is no standard reporting format. At this time, OTTED does not compile an annual report highlighting the achievements of the Innovation Incentive Program.

The lack of a consolidated report of the program awardees' progress also limits a big-picture evaluation of the program's overall economic impact to the communities where the institutes are located, and to the state as a whole. Modeled data certainly has an important role in assessing economic impact, but on-the-ground reporting of direct and indirect business relocation and related employment is necessary to prove that clustering and synergy are occurring, as predicted. Such research is time-consuming, but can be extremely useful to policymakers.

For example, the Economic Development Council of St. Lucie County reports that Martin Memorial Hospital is seeking a state Certificate of Need approval for a 300-bed hospital next to the Mann Foundation property and will provide imaging, pathology, and clinical trial services to Torrey Pines and VGTI.<sup>39</sup> Additionally, Indian River Community College and the St. Lucie County School Board are researching the possibility of opening a charter school specializing in mathematics and science on Torrey Pines property.<sup>40</sup>

Similarly, a representative of the Palm Beach County Business Development Board indicates that the presence of Scripps Florida and the Max Planck Institute has generated several positive examples of economic and workforce synergy:<sup>41</sup>

- Alexandria Real Estate Equities, a nationally recognized developer of commercial and business incubator properties, recently completed a 46,000 square-foot "wet lab" incubator in Jupiter, and already has one tenant.
- The board also is trying to recruit a publicly traded biotech company that is interested in moving two labs and its headquarters to Palm Beach County to be near Scripps Florida and Max Planck.
- Indications are that ancillary businesses, such as attorneys specializing in intellectual property law, are establishing offices in Palm Beach County.
- The Palm Beach County School Board has created three bioscience career academy high schools.

estimates in state revenues, increase in the Gross State Product, and employment, whose totals are derived from a computer model inputting the awardees' total job creation and average wage figures specified in their OTTED contracts. A copy of EFI's most recent report is available at

http://www.eflorida.com/uploadedFiles/Florida\_Knowledge\_Center/Resource\_Center/Resource\_Links/2007%20Incentives% 20Report.pdf. Information on the Innovation Incentive Program is on pages 30-31.

<sup>&</sup>lt;sup>39</sup> Email from Beth Babington to Senate Commerce Committee staff, dated Aug. 1, 2008.

<sup>40</sup> Ibid.

<sup>&</sup>lt;sup>41</sup> Email from Kelly Smallridge to Al Latimer and Beth Babington of EFI, dated August 4, 2008.

• The Palm Beach County Community College has built a 90,000-square-foot bioscience training facility about 5 miles from the permanent facilities of Scripps Florida and Max Planck.

The Pinellas County Economic Development Office also indicated that several companies have established operations in the St. Petersburg area because of SRI's presence, and that it has fielded several inquiries from vendors, suppliers, and other companies interested in relocating to the area.<sup>42</sup>

These examples indicate that clustering and synergy are occurring as a byproduct of the Innovation Incentive Program. However, without an on-going comprehensive evaluation of the program, it is difficult to identify the key factors – other than the infusion of state and local financial incentives in individual projects – that facilitate clustering and synergy that can foster self-sustaining economic development.

Indentifying, understanding and measuring these key factors are especially important when new public resources for innovation investments are unavailable.

## **Options**

The Legislature may wish to consider options enhancing reporting and oversight of the Innovation Incentive Program, and to require alternative ways of measuring and evaluating the program's impact other than by traditional modeling.

### Reporting options include:

- Direct OTTED to compile into one annual report the various reports and documentation required from the grant recipients throughout each year. The report also could include an evaluation by OTTED of the grant recipients' progress and accomplishments. The annual report would be submitted to the Governor and the Legislature by January 15 of each year, beginning in 2010.
- For Innovation Incentive Program awardees selected after the effective date of this act, OTTED should establish identical reporting periods, even if that means delaying the initial quarterly report beyond three months of the signing of the contract. This will make it easier to keep track of when reports are due, and more importantly facilitate a comprehensive review of the program.
- Similarly, OTTED should work with the Innovation Incentive Program awardees, and with Scripps Florida, to develop a more uniform quarterly and annual report format. Currently, the formats range from one page to eight pages. The reports also vary as to content. More uniform reports will improve the ability of OTTED and the Legislature to monitor and evaluate these research institutes' performance throughout the term of their contracts with the state.
- Direct the Office of Program Policy Analysis and Governmental Accountability (OPPAGA) and the Office of the Auditor General to annually review the various financial and operational reports of the Innovation Incentive Program grant recipients, and compile a joint report that evaluates achievement of the performance measures and validates other compliance measures within the contracts. This joint report could be in addition to, or in lieu of, the OTTED report. This joint annual report would be submitted to the Governor and the Legislature by January 15 of each year, beginning in 2010.

#### Oversight options include:

• Create an Innovation Incentive Program Advisory Board that would participate, with OTTED and EFI, in the development of the agreements with new grant recipients. It also would provide technical assistance to OTTED, similar to the role the Florida Technology, Research, and Scholarship Board within the Board of Governors has with the Centers of Excellence Program. At least some of the advisory board's members would be expected to have background or expertise in the biotechnology market. The advisory board also could review both new and existing recipients' progress toward achieving the performance benchmarks tied to release of state funding, and be consulted on any contract changes or waivers, as needed. The advisory board, OTTED, and EFI would coordinate their efforts to submit a joint annual report to the Governor and Legislature, beginning January 15, 2010, describing the previous year's efforts by the grant

<sup>&</sup>lt;sup>42</sup> Email from Beth Babington to Senate Commerce Committee staff, dated August 1, 2008.

- recipient to achieve their benchmarks and performance expectations. The board's expenses could be paid from a small dedicated portion of the interest earnings on the Innovation Incentive Program funds.
- Amend s. 288.955, F.S., to expand the Scripps Florida Funding Corporation's responsibilities to include oversight of the Innovation Incentive Program. The corporation members have the required expertise and experience to comprehensively review the audits and other reports required of the Innovation Incentive Program recipients. The corporation would submit an annual report to the Governor and Legislature, beginning January 15, 2010, describing the previous year's efforts by the grant recipient to achieve their benchmarks and performance expectations. This report would be separate from the corporation's currently required annual report on its yearly activities pertaining to oversight of Scripps Florida.

## Optional changes to the Innovation Incentive Program include:

- Direct OTTED and its economic-development partners, in consultation with the Office of Program Policy Analysis and Accountability, to develop comprehensive measures of success for the Innovation Incentive Program. Such measures could include: the number of complementary businesses that relocate, open, or expand near an Innovation Incentive Program awardee without receiving state incentives; increased growth in area jobs and wages; creation of math or science programs within secondary and postsecondary schools; creation of relevant job-training programs within secondary, postsecondary, and vocational-technical schools, with quantifiable job-placement rates within the region; increases in sales tax revenues in the applicable communities; and increases in the number of corporate filings in the applicable communities. These measures would not be amended to the existing contracts.
- Require all future agreements to include reinvestment to the state of a percentage of certain profits of the Innovation Incentive Program from royalties earned by patented, commercialized discoveries. Three of the existing contracts do not include this provision, but reinvestment is included in the four other Innovation Incentive Program contracts, and it is statutorily required of TSRI. Historically, the percentages of a pharmaceutical discovery, piece of equipment, or process coming to market and becoming financially successful are slim. But the state should be considered for a small share of any profits that may occur, since the company relied on the state's funds to relocate here and build its facilities. The state's share of reinvestment funds could be deposited in trust funds applicable to the type of research that led to the eventual discovery and commercialization, such as the Biomedical Research Trust Fund, or to OTTED's Economic Development Trust Fund. Royalties from spinoffs also should be included in the statutory provision, because it appears to be common practice for biomedical and technology companies to create a new company to conduct additional research on promising products and then take them to market.
- Delete the requirement that the Innovation Incentive Program awardee pay an annual wage that is at least 130 percent of the average of all private-sector wages in the county or standard metropolitan area where the awardee is locating. Instead, the awardee would pay an annual wage that is at least equal to the average wage in the same industry, or if applicable, at least the average wage paid to employees at the headquarters or subsidiaries of the awardee. This change could ensure that in a state whose 2007 annual average wage was an estimated \$38,444,<sup>43</sup> the Innovation Incentive Program is recruiting companies that are paying salaries that will attract and retain the best-trained and motivated employees. According to the "Growing the Nation's Bioscience Sector—State Bioscience Initiatives 2006" referenced above, bioscience workers earn a significant wage compared with their counterparts in the rest of the private sector. Nationally, the average bioscience worker earned \$65,775 in 2004, versus \$39,003 in the overall private sector.

<sup>43</sup> 2007 preliminary statistic reported by the U.S. Department of Commerce's Bureau of Economic Analysis. See <a href="http://www.bea.gov/newsreleases/regional/spi/spi">http://www.bea.gov/newsreleases/regional/spi/spi</a> newsrelease.htmbyinary for link to Excel chart for all 50 states.